



RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/09/666,837B

TIME: 11:49:19

Input Set : A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

3 <110> APPLICANT: Cornell-Bell, Ann H.
 4 Pemberton, Karen E.
 5 Temple Jr., Davis L.
 6 Layer, Richard T.
 7 McCabe, R. Tyler
 8 Jones, Robert M.
 9 Cognetix, Inc.
 11 <120> TITLE OF INVENTION: Uses of Kappa-Conotoxin PVIIA
 13 <130> FILE REFERENCE: Kappa-PVIIA
 15 <140> CURRENT APPLICATION NUMBER: US/09/666,837B
 16 <141> CURRENT FILING DATE: 2000-09-21
 18 <150> PRIOR APPLICATION NUMBER: US 60/219,438
 19 <151> PRIOR FILING DATE: 2000-07-20
 21 <150> PRIOR APPLICATION NUMBER: US 60/155,135
 22 <151> PRIOR FILING DATE: 1999-09-22
 24 <160> NUMBER OF SEQ ID NOS: 25
 26 <170> SOFTWARE: PatentIn Ver. 2.0
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 27
 30 <212> TYPE: PRT
 31 <213> ORGANISM: Conus purpurascens
 33 <220> FEATURE:
 34 <221> NAME/KEY: PEPTIDE
 35 <222> LOCATION: (1)..(27)
 36 <223> OTHER INFORMATION: Xaa at residue 2, 7, 18, 19, 22 and 25 may be Arg,
 37 homoarginine, ornithine, Lys, N-methyl-Lys,
 38 N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any
 39 synthetic basic amino acid, His or halo-His; Xaa at
 41 <220> FEATURE:
 42 <221> NAME/KEY: PEPTIDE
 43 <222> LOCATION: (1)..(27)
 44 <223> OTHER INFORMATION: residue 4 may be Pro or Hyp; Xaa at residue 9 and
 45 23 may be Phe, Tyr, meta-Tyr, ortho-Tyr, nor-Tyr,
 46 mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
 47 O-phospho-Tyr, nitro-Tyr, Trp (D or L), neo-Trp,
 49 <220> FEATURE:
 50 <221> NAME/KEY: PEPTIDE
 51 <222> LOCATION: (1)..(27)
 52 <223> OTHER INFORMATION: halo-Trp (D or L) or any synthetic aromatic amino
 53 acid; Xaa at residue 11 is His or halo-His
 55 <400> SEQUENCE: 1
 56 Cys Xaa Ile Xaa Asn Gln Xaa Cys Xaa Gln Xaa Leu Asp Asp Cys Cys
 57 1 5 10 15

ENTERED

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/09/666,837B

TIME: 11:49:20

Input Set : A:\206a-rs2.txt

Output Set : N:\CRF3\02062002\I666837B.raw

59 Ser Xaa Xaa Cys Asn Xaa Xaa Asn Xaa Cys Val
 60 20 25
 63 <210> SEQ ID NO: 2
 64 <211> LENGTH: 27
 65 <212> TYPE: PRT
 66 <213> ORGANISM: Conus purpurascens
 68 <220> FEATURE:
 69 <221> NAME/KEY: PEPTIDE
 70 <222> LOCATION: (1)..(27)
 71 <223> OTHER INFORMATION: Xaa is Hyp
 73 <400> SEQUENCE: 2
 74 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 75 1 5 10 15
 77 Ser Ala Lys Cys Asn Arg Phe Asn Lys Cys Val
 78 20 25
 81 <210> SEQ ID NO: 3
 82 <211> LENGTH: 27
 83 <212> TYPE: PRT
 84 <213> ORGANISM: Conus purpurascens
 86 <220> FEATURE:
 87 <221> NAME/KEY: PEPTIDE
 88 <222> LOCATION: (1)..(27)
 89 <223> OTHER INFORMATION: Xaa is Hyp
 91 <400> SEQUENCE: 3
 92 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 93 1 5 10 15
 95 Ser Arg Lys Cys Asn Ala Phe Asn Lys Cys Val
 96 20 25
 99 <210> SEQ ID NO: 4
 100 <211> LENGTH: 27
 101 <212> TYPE: PRT
 102 <213> ORGANISM: Conus purpurascens
 104 <220> FEATURE:
 105 <221> NAME/KEY: PEPTIDE
 106 <222> LOCATION: (1)..(27)
 107 <223> OTHER INFORMATION: Xaa is Hyp
 109 <400> SEQUENCE: 4
 110 Cys Arg Ala Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 111 1 5 10 15
 113 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
 114 20 25
 117 <210> SEQ ID NO: 5
 118 <211> LENGTH: 27
 119 <212> TYPE: PRT
 120 <213> ORGANISM: Conus purpurascens
 122 <220> FEATURE:
 123 <221> NAME/KEY: PEPTIDE
 124 <222> LOCATION: (1)..(27)
 125 <223> OTHER INFORMATION: Xaa is Hyp

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/09/666,837B

TIME: 11:49:20

Input Set : A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

127 <400> SEQUENCE: 5
 128 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 129 1 5 10 15
 131 Ser Arg Ala Cys Asn Arg Phe Asn Lys Cys Val
 132 20 25
 135 <210> SEQ ID NO: 6
 136 <211> LENGTH: 27
 137 <212> TYPE: PRT
 138 <213> ORGANISM: Conus purpurascens
 140 <220> FEATURE:
 141 <221> NAME/KEY: PEPTIDE
 142 <222> LOCATION: (1)..(27)
 143 <223> OTHER INFORMATION: Xaa is Hyp
 145 <400> SEQUENCE: 6
 146 Cys Ala Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 147 1 5 10 15
 149 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
 150 20 25
 153 <210> SEQ ID NO: 7
 154 <211> LENGTH: 27
 155 <212> TYPE: PRT
 156 <213> ORGANISM: Conus purpurascens
 158 <220> FEATURE:
 159 <221> NAME/KEY: PEPTIDE
 160 <222> LOCATION: (1)..(27)
 161 <223> OTHER INFORMATION: Xaa is Hyp
 163 <400> SEQUENCE: 7
 164 Cys Arg Ile Xaa Asn Gln Lys Cys Ala Gln His Leu Asp Asp Cys Cys
 165 1 5 10 15
 167 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
 168 20 25
 171 <210> SEQ ID NO: 8
 172 <211> LENGTH: 27
 173 <212> TYPE: PRT
 174 <213> ORGANISM: Conus purpurascens
 176 <220> FEATURE:
 177 <221> NAME/KEY: PEPTIDE
 178 <222> LOCATION: (1)..(27)
 179 <223> OTHER INFORMATION: Xaa is Hyp
 181 <400> SEQUENCE: 8
 182 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 183 1 5 10 15
 185 Ser Arg Lys Cys Asn Arg Phe Asn Ala Cys Val
 186 20 25
 189 <210> SEQ ID NO: 9
 190 <211> LENGTH: 27
 191 <212> TYPE: PRT
 192 <213> ORGANISM: Conus purpurascens
 194 <220> FEATURE:

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/09/666,837B

TIME: 11:49:20

Input Set.: A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

```

195 <221> NAME/KEY: PEPTIDE
196 <222> LOCATION: (1)..(27)
197 <223> OTHER INFORMATION: Xaa is Hyp
199 <400> SEQUENCE: 9
WOK 200 Cys Lys Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
201 1 5 10 15
203 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
204 20 25
207 <210> SEQ ID NO: 10
208 <211> LENGTH: 27
209 <212> TYPE: PRT
210 <213> ORGANISM: Conus purpurascens
212 <220> FEATURE:
213 <221> NAME/KEY: PEPTIDE
214 <222> LOCATION: (1)..(27)
215 <223> OTHER INFORMATION: Xaa is Hyp
217 <400> SEQUENCE: 10
WOK 218 Cys Arg Ile Xaa Asn Gln Ala Cys Phe Gln His Leu Asp Asp Cys Cys
219 1 5 10 15
221 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
222 20 25
225 <210> SEQ ID NO: 11
226 <211> LENGTH: 27
227 <212> TYPE: PRT
228 <213> ORGANISM: Conus purpurascens
230 <220> FEATURE:
231 <221> NAME/KEY: PEPTIDE
232 <222> LOCATION: (1)..(27)
233 <223> OTHER INFORMATION: Xaa is Hyp
235 <400> SEQUENCE: 11
WOK 236 Cys Arg Ile Xaa Asn Gln Lys Cys Met Gln His Leu Asp Asp Cys Cys
237 1 5 10 15
239 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
240 20 25
242 <210> SEQ ID NO: 12
243 <211> LENGTH: 27
244 <212> TYPE: PRT
245 <213> ORGANISM: Conus purpurascens
247 <220> FEATURE:
248 <221> NAME/KEY: PEPTIDE
249 <222> LOCATION: (1)..(27)
250 <223> OTHER INFORMATION: Xaa is Hyp
WOK 252 <400> SEQUENCE: 12
WOK 253 Cys Arg Ile Xaa Asn Gln Lys Cys Tyr Gln His Leu Asp Asp Cys Cys
254 1 5 10 15
256 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
257 20 25
259 <210> SEQ ID NO: 13
260 <211> LENGTH: 27

```

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/09/666,837B

TIME: 11:49:20

Input Set : A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

261 <212> TYPE: PRT
 262 <213> ORGANISM: Conus purpurascens
 264 <220> FEATURE:
 265 <221> NAME/KEY: PEPTIDE
 266 <222> LOCATION: (1)..(27)
 267 <223> OTHER INFORMATION: Xaa is Hyp
 269 <400> SEQUENCE: 13
 OK-> 270 Cys Gln Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 271 1 5 10 15
 273 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
 274 20 25
 277 <210> SEQ ID NO: 14
 278 <211> LENGTH: 27
 279 <212> TYPE: PRT
 280 <213> ORGANISM: Conus purpurascens
 282 <220> FEATURE:
 283 <221> NAME/KEY: PEPTIDE
 284 <222> LOCATION: (1)..(27)
 285 <223> OTHER INFORMATION: Xaa is Hyp
 287 <400> SEQUENCE: 14
 OK-> 288 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln Ala Leu Asp Asp Cys Cys
 289 1 5 10 15
 291 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
 292 20 25
 295 <210> SEQ ID NO: 15
 296 <211> LENGTH: 27
 297 <212> TYPE: PRT
 298 <213> ORGANISM: Conus purpurascens
 300 <220> FEATURE:
 301 <221> NAME/KEY: PEPTIDE
 302 <222> LOCATION: (1)..(27)
 303 <223> OTHER INFORMATION: Xaa is Hyp
 305 <400> SEQUENCE: 15
 OK-> 306 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Ala Cys Cys
 307 1 5 10 15
 309 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val
 310 20 25
 313 <210> SEQ ID NO: 16
 314 <211> LENGTH: 27
 315 <212> TYPE: PRT
 316 <213> ORGANISM: Conus purpurascens
 318 <220> FEATURE:
 319 <221> NAME/KEY: PEPTIDE
 320 <222> LOCATION: (1)..(27)
 321 <223> OTHER INFORMATION: Xaa is Hyp
 323 <400> SEQUENCE: 16
 OK-> 324 Cys Arg Ile Xaa Asn Ala Lys Cys Phe Gln His Leu Asp Asp Cys Cys
 325 1 5 10 15
 327 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/666,837B

DATE: 02/06/2002

TIME: 11:49:21

Input Set : A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

L:15 M:270 C: Current Application Number differs, Replaced Application Number
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:270 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:306 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:396 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25